

CATEGORY K

ALERTNESS OR SLEEP DISORDERS

A variety of conditions cause fatigue or sleepiness and may adversely affect attentiveness, concentration and alertness. Consequently, some people with these conditions will have a significant increased risk of having a motor vehicle accident. Examples include primary sleep disorders such as obstructive sleep apnea syndrome and narcolepsy. Other causes include chronic insufficient sleep, shift work, medications, primary central nervous system disorders and psychiatric disturbances. A person may also be inattentive without having hypersomnia but most patients with significant excessive sleepiness are inattentive.

The assessment of a person's ability to remain fully attentive can be difficult and requires sensitivity and knowledge of the various conditions that may be present. Symptoms may be non-specific or obviously related to an already diagnosed condition. Some cases may require specialty evaluation by a sleep medicine specialist, neurologist, etc. A few simple questions can usually detect if a person has fatigue or hypersomnia. The Epworth Sleepiness Scale (ESS) has been validated as a reliable method to estimate the presence of excessive sleepiness. Values greater than 10 usually indicate the presence of abnormal sleep tendency but do not identify a specific cause.

The ultimate decision to recommend any specific limitations of driving privileges should be determined by the physician's best judgement. There are some tests available in certain facilities which can serve as a guide to a person's attentiveness (Steer Clear Driving Performance Test), which will predict with certainty an individual's driving risk. The ESS is used only as a guideline to approximate a person's degree of sleep tendency. If the ESS score is > 10, further evaluation is probably warranted and the patient should be advised. Scores of > 15 clearly indicate serious symptoms and driving should be discouraged until further medical assessment and therapy can be provided.

Instructions for use of the Epworth Sleepiness Scale (ESS) and the relative values for scoring are to be found on the following page, which may be copied for office use.

Johns, MW. 1991. A new method for measuring daytime sleepiness: the Epworth sleepiness scale. *Sleep* 14:540-545.

Findley, LJ, et al. 1995. Vigilance and automobile accidents in patients with sleep apnea or narcolepsy. *Chest* 108:619-624.

Aldrich, M. 1989. Automobile accidents in patients with sleep disorders. *Sleep* 12:487-494.

American Thoracic Society. 1994. Sleep apnea, sleepiness and driving risk. *AmJ Respir Crit Care Med* 150:1463-1473.

EPWORTH SLEEPINESS SCALE (ESS)

INSTRUCTIONS: Rate the chance that you would doze off or fall asleep during different, routine, daytime situations. How likely are you to fall asleep in contrast to just feeling tired? Use the following scale to choose the most appropriate number for each situation. Then add the numbers for the total score.

ESS Scale: 0 = Would *never* doze.
 1 = *Slight* chance of dozing.
 2 = *Moderate* chance of dozing.
 3 = *High* chance of dozing.

SITUATION	CHANCE OF DOZING (0-3)
Sitting and reading	
Watching television	
Sitting inactive in a public place, for example, a theater or meeting	
As a passenger in a car for an hour without a break	
Lying down to rest in the afternoon	
Sitting and talking to someone	
Sitting quietly after lunch	
In a car, while stopped in traffic	
TOTAL COUNT =	

